1063-57-94 Cagatay Kutluhan* (kutluhan@math.columbia.edu), Department of Mathematics, Columbia University, 2990 Broadway, New York, NY 10027, Yi-Jen Lee (yjlee@math.purdue.edu), Department of Mathematics, Purdue University, West Lafayette, IN 47907, and Clifford Henry Taubes (chtaubes@math.harvard.edu), Department of Mathematics, Harvard University, Cambridge, MA 02138. *Heegaard Floer homology and Seiberg-Witten Floer homology.*

Let M be a closed, connected and oriented 3-manifold. We construct isomorphisms between the Heegaard Floer homology groups of M and the corresponding balanced versions of the Seiberg–Witten Floer homology groups of M. In this talk we give an overview of our construction and emphasize essential ingredients. This is joint work with Yi-Jen Lee and Clifford Henry Taubes. (Received August 09, 2010)